

(22.2.80).

400 059.

Host plant: Triumfetta pilosa Roth -
Tiliaceae.

Paratype: Two specimens, data same as
holotype.

Type location: For the present in
Livingstone's collection, Dept. of Zoology,
Madras Christian College, Tambaram, Madras -

ACKNOWLEDGEMENTS

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A REVISION OF GENUS *UNGULIA* MALAISE
(HYMENOPTERA, SYMPHYTA, TENTHREDINIDAE: ALLANTINAE)¹

MALKIAT S. SAINI AND V. VASU²
(With forty four text-figures)

With recognition of seven species (two already described and five new) genus *Ungulia* Malaise has been revised. Described as new are : *U. auratica*, *U. himalayaensis*, *U. brevis*, *U. scutopunctatus* and *U. acupunctata*. While *U. fasciiventris* Malaise represents first record from India. Treatment of each taxon includes synonymy (if any), detailed description, collection data, population variation (if any), and distribution. A key is provided for all species dealt herewith.

INTRODUCTION

Mainly based on the presence of a simple claw, absence of postgenal carina, malar space more than diameter of median ocellus, etc., the genus *Ungulia* was erected by Malaise in 1961, taking *Taxonus nigritarsis* Cameron, 1902 as its type species. So far, this genus was represented by two species only, i.e. *U. fasciiventris* Malaise and *U. nigritarsis* (Cameron).

In the present text, seven species are described and illustrated which include, two that have already been reported and five as new to science. Holotypes of new species are presently in our collections and will be deposited in the Indian Agricultural Research Institute (IARI), Pusa, National Collections, New Delhi, India after this work is published. Abbreviations used

in the text are: EL- eye length, IATS- inner apical tibial spur, ICD- inter-cencheri distance, IDMO- interocular distance at level of median ocellus, ITD- inter-tegular distance, LID - lower inter-ocular distance, MB- metabasitarsus, OATS- outer apical tibial spur, OCL- ocello-occipital line, OOL- oculo-ocellar line, POL- postocellar line.

Genus *Ungulia* Malaise, 1961

Ungulia Malaise, 1961. Ent. Tidskr; Arg, 82, Hafte 3-4: 244-245.

Type species: *Taxonus nigritarsis* Cameron, 1902.

Diagnosis: Adult: forewing with 2 radial and 4 cubital cells; 2nd and 3rd of the latter subequal in length, and each receiving a recurrent vein. Basalis subparallel to medius and joins subcosta close to the base of cubitus. Nervulus at the apical 2/5 of the cell. Anal cell with a crossvein at apical fourth of the cell,

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nearly perpendicular with an angle of about 80° . Hindwings without closed middle cells, but the radiellian and anellian cell are closed, the latter with long petiole. Nervellus perpendicular only against the mediellian, but not against the brachiellian vein. Hindorbits not carinated. Inner margins of eyes subparallel. Head narrowing behind eyes; lateral furrows diverging posteriorly; postocellar area broader than long. Frontal area roundly elevated above a line touching both eyes, without carinae, and laterally unsharply limited by roundly depressed antennal furrows. Malar space as long as, or longer than pedicel. Clypeus subconvex, roundly emarginate. Mandibles subsymmetric, roundly curved, each with a subapical tooth near the apex. Antenna long; flagellum filiform. Mesopleura without presterna. Abdomen and legs normal; hind basitarsus subequal in length to following tarsal joints combined. Claws simple.

Remarks: To introduce some new species in genus *Ungulia*, some of its generic characters such as puncturation of head and thorax, specific ratio of postocellar area, specificity of post-, inter-, and circum- ocellar furrows, different conditions of scape and pedicel, specific colour pattern of the body, and ratio of antennal segments 3 and 4 have been intentionally dropped. All these characters should now onward be considered at species level only. This has been done with a view that we do not want to erect unnecessarily a new genus on the basis of these unstable and weak morphological characters.

KEYS TO SPECIES OF GENUS *Ungulia* MALAISE

1. Abdomen entirely black 3
* Abdomen not entirely black 2
2. Tergites 2-5 entirely auratus; postocellar area broader than long as 2:1; scape 1.3X its apical width; pedicel as long as its apical width . . . *U. auratica* sp. nov.
* Tergites 2-5 not entirely auratus; postocellar area broader than long as 3:1; scape as long as its apical

- width; pedicel 1.3X its apical width
. *U. fasciiventris* Malaise, 1961
3. Antennal segments 3 and 4 subequal; malar space less than 2X diameter of medial ocellus 4
* Antennal segments 3 and 4 equal; malar space 2X or more than diameter of median ocellus 5
 4. Median fovea deep ditch-like in its anterior half and posteriorly not reaching median ocellus (Fig. 35); OOL:POL:OCL = 4:4:3; postocellar area broader than long as 3:2; segment 3 longer than 4 as 7:6; malar space twice as long as pedicel
. *U. acupunctata* sp. nov.
* Median fovea in the form of a shallow triangular pit in its anterior half and posteriorly only shallowly reaching median ocellus (Fig. 36); OOL:POL:OCL = 5:4:5; postocellar area broader than long as 4:3; segment 3 shorter than 4 as 6:7; malar space as long as pedicel *U. himalayaensis* sp. nov.
 5. Postocellar area broader than long as 2:1; pedicel as long as 1/2 of its apical width; clypeus circularly emarginate up to 1/3 of its median length
. *U. brevis* sp. nov.
* Postocellar are broader than long as 3:2; pedicel as long as its apical width; clypeus only shallowly emarginate 6
 6. Median fovea deep, ditch-like and clearly reaching median ocellus (Fig. 38); malar space 2.5X diameter of median ocellus and 1.5X pedicel length; OOL:POL:OCL = 4:4:5;
. *U. nigritarsis* (Cameron, 1902)
* Median fovea shallow, ditch-like in its anterior half and posteriorly only shallowly reaching median ocellus (Fig. 39); malar space 2X diameter of median ocellus and 1.2X pedicel length; OOL:POL:OCL = 4:4:3
. *U. scutopunctatus* sp. nov.

Ungulia auratica sp. nov. (Figs. 1, 5, 17, 23, 26, 33, 40)

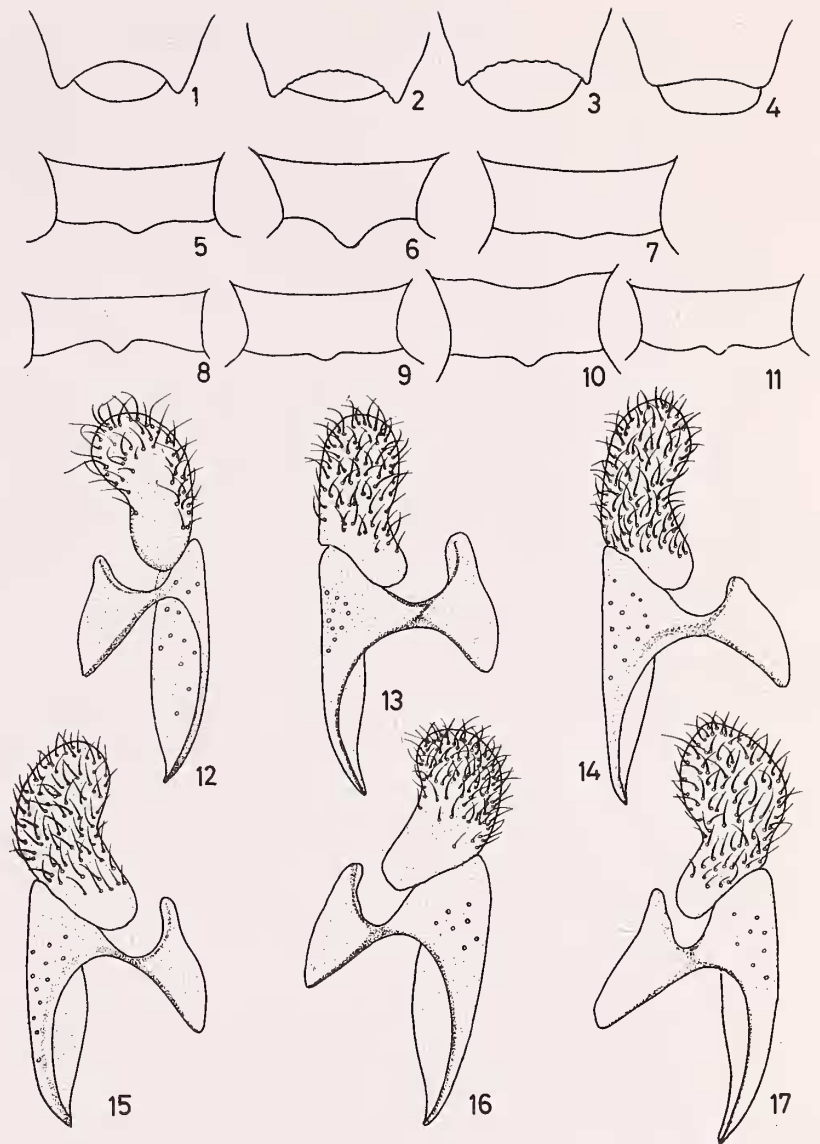
FEMALE: Colour: Body black, whitish yellow are: clypeus except extreme base; labrum; a transverse band on lower posterior half of mesepisternum; all legs except at joints of femora and tibiae, posterior aspects and apical 1/4 of all tibiae and all tarsi which are fuscus. Auratus are: tergites 2-6 entirely; all sternites entirely. Wings faintly infumated; venation including costa, subcosta and stigma piceous.

Structure: Average length 5 mm. Antenna (Fig. 40) 2.6X head width; scape 1.3X its apical width; pedicel as long as its apical width; segments 3 and 4 equal; clypeus (Fig. 1) circularly incised up to 1/3 of its medial length; labrum (Fig. 1) broader than long as 2:1, with deflexed rounded anterior margin; malar space 1.75X diameter of median ocellus and as long as pedicel; LID:IDMO:EL = 3:3:2; median fovea (Fig. 33) in form of a deep, circular pit in its anterior half and posteriorly only shallowly reaching median ocellus; post-, inter-, and circum-ocellar furrows sharp and distinct; lateral furrows deep, distinct, slightly diverging and ending abruptly well before the hypothetical hind margin of head; postocellar area subconvex, broader than long as 2:1; OOL:POL:OCL=2:2:1; mesoscutellum subconvex; appendage not carinated; ICD:ITD = 2:7; metabasitarsus subequal to following joints combined as 6:7; IATS:MB:OATS = 2:6:1.5. Lancet (Fig. 26) with 13 serrulae. Hypopygium as in Fig. 5.

Sculpture and pubescence: Head impunctate, shining; mesonotum with dense, minute, irregular punctures, surface shining; mesoscutellum with few shallow, scattered punctures on posterior border, surface polished; appendage impunctate, polished; mesepisternum and mesosternum impunctate, surface shining with oily lustre; abdomen impunctate shining. Body covered with silvery pubescence except for the auratus parts where it appears to be golden.

MALE: Average length 4.5 mm. Similar to female. Male genitalia: Penis valve (Fig. 23), gonoforceps (Fig. 17).

Material examined: *Holotype:* FEMALE, Manipur, Ukhrul, 1700 m 22.9.1992. *Paratypes:* Nagaland, Kohima, 1495 m (4 ♀♀), 12.9.1992; Pfutsero, 2100 m (1 ♂), 19.5.1993. Arunachal Pradesh, Hapoli, 1500 m (2 ♀♀, 1 ♂), 17.5.1992. Manipur, Ukhrul, 1700 m (6 ♀♀, 2 ♂♂), 22.9.1992. Mizoram, Aizawl, 2100 m (1 ♀,



Figs. 1-4. Clypeus & Labrum: 1. *U. auratica* sp. nov.; 2. *U. fasciiventris* Malaise; 3. *U. nigritarsis* (Cameron); 4. *U. scutopunctatus* sp. nov.; 5-11. Hypopygium: 5. *U. auratica* sp. nov.; 6. *U. fasciiventris* Malaise; 7. *U. himalayaensis* sp. nov.; 8. *U. acupunctata* sp. nov.; 9. *U. scutopunctatus* sp. nov.; 10. *U. nigritarsis* (Cameron); 11. *U. brevis* sp. nov.; 12-17. Gonoforceps: 12. *U. fasciiventris* Malaise; 13. *U. himalayaensis* sp. nov.; 14. *U. nigritarsis* (Cameron); 15. *U. acupunctata* sp. nov.; 16. *U. brevis* sp. nov.; 17. *U. auratica* sp. nov.

1 ♂), 14.5.1993; Lunglie, 1700 m (1 ♂), 17.5.1993.

Population variation: Tergite 2nd may be with somewhat fuscus anterior margin; tergite 6th may be fuscus partly; spot on lower posterior 1/2 of mesepisternum may be faintly indicated or absent.

Distribution: INDIA: Manipur, Nagaland, Arunachal Pradesh, Mizoram.

Diagnostic combinations: Though *U. auratica* comes close to *U. fasciiventris*, still some significant characters such as: tergites 2-5 entirely auratus (broad medial, auratus spot on tergites 2-5 in *U. fasciiventris*); postocellar area broader than long as 2:1 (3:1 in *U. fasciiventris*); scape 1.3X apical width (as long as its apical width in *U. fasciiventris*); pedicel as long as its apical width (1.3X its apical width in *U. fasciiventris*); median fovea in the form of a deep, circular pit in its anterior 1/2 and posteriorly only shallowly reaching median ocellus (median fovea in the form of a broad pit between antennae in *U. fasciiventris*); makes it distinct from *U. fasciiventris*.

Etymology: Species name pertains to general colour of its abdomen.

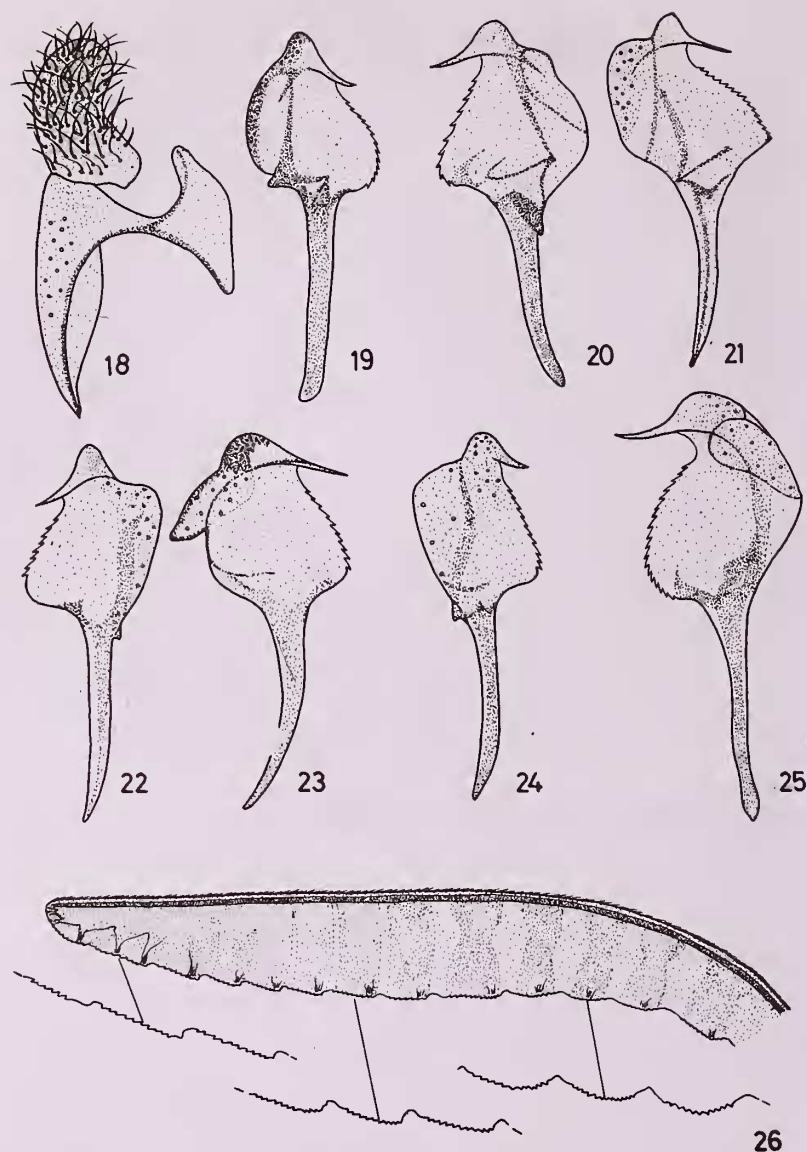
Ungulia fasciiventris Malaise, 1961

(Figs. 2, 6, 12, 24, 27, 34, 41)

U. fasciiventris Malaise, 1961. Ent. Tidskr; Arg, 82, Hafte 3-4, p.244.

FEMALE: Colour: Body black, yellowish white are: clypeus; labrum; a transverse spot along border of mesopleuron with mesosternum; all legs except extreme apex of all tibiae and tarsi entirely; all sternites and deflexed parts of all tergites. Auratus are: broad irregular medial spot on tergites 2-5. Wings infumated; venation including costa, subcosta and stigma dark brown.

Structure: Average length 6 mm. Antenna (Fig. 41) 2X head width; scape as long as its apical width; pedicel 1.3X its apical width; segments 3 and 4 subequal as 7:6; clypeus (Fig. 2) with wavy and faintly emarginate anterior margin; labrum broader than long as 2:1, with deflexed rounded anterior margin; LID:IDMO:EL = 3:3:2; malar space 1.5X diameter of median ocellus and as long as pedicel; frontal area elevated above level of eyes; median fovea (Fig. 34) in form of a broad



Figs. 18. Gonoforceps: 18. *U. scutopunctatus* sp. nov.; 19-25. Penis valve: 19. *U. himalayaensis* sp. nov.; 20. *U. nigratarsis* (Cameron); 21. *U. acupunctata* sp. nov.; 22. *U. brevis* sp. nov.; 23. *U. auratica* sp. nov.; 24. *U. fasciiventris* Malaise; 25. *U. scutopunctatus* sp. nov.; 26. Lancet: 26. *U. auratica* sp. nov.

pit between antennae; post-, inter-, and circum-ocellar furrows distinct; lateral furrows marked, diverging posteriorly and ending well before the hypothetical hind margin of head; postocellar area broader than long as 3:1; OOL:POL:OCL = 3:2:3; mesoscutellum flat; appendage not carinate; ICD:ITD = 1.0:3.5; metabasitarsus equal to following joints combined; IATS:MB:OATS = 1.5:4:1; Lancet (Fig. 27) having 14 serrulae. Hypopygium as in Fig. 6.

Sculpture and pubescence: Head and thorax shining and minutely punctured; abdomen

impunctate. Body covered with silvery pubescence except for auratus parts where it appears to be golden.

MALE: Average length 5.0 mm. Similar to female. Male genitalia: Penis valve (Fig. 24), gonoforceps (Fig. 12).

Holotype depository: FEMALE, NR Stockholm.

Paratypes depository: 2 ♀♀, 5 ♂♂, NR Stockholm.

Specimen examined: Arunachal Pradesh, Bomdila, 2550 m, (1 ♀, 8 ♂♂), 8.5.1992; (1 ♀, 14 ♂♂), 13.9.1992. West Bengal, Darjeeling, 2280 m, (6 ♂♂), 7.5.1993; Mirik, 1700 m, (4 ♂♂), 10.5.1993.

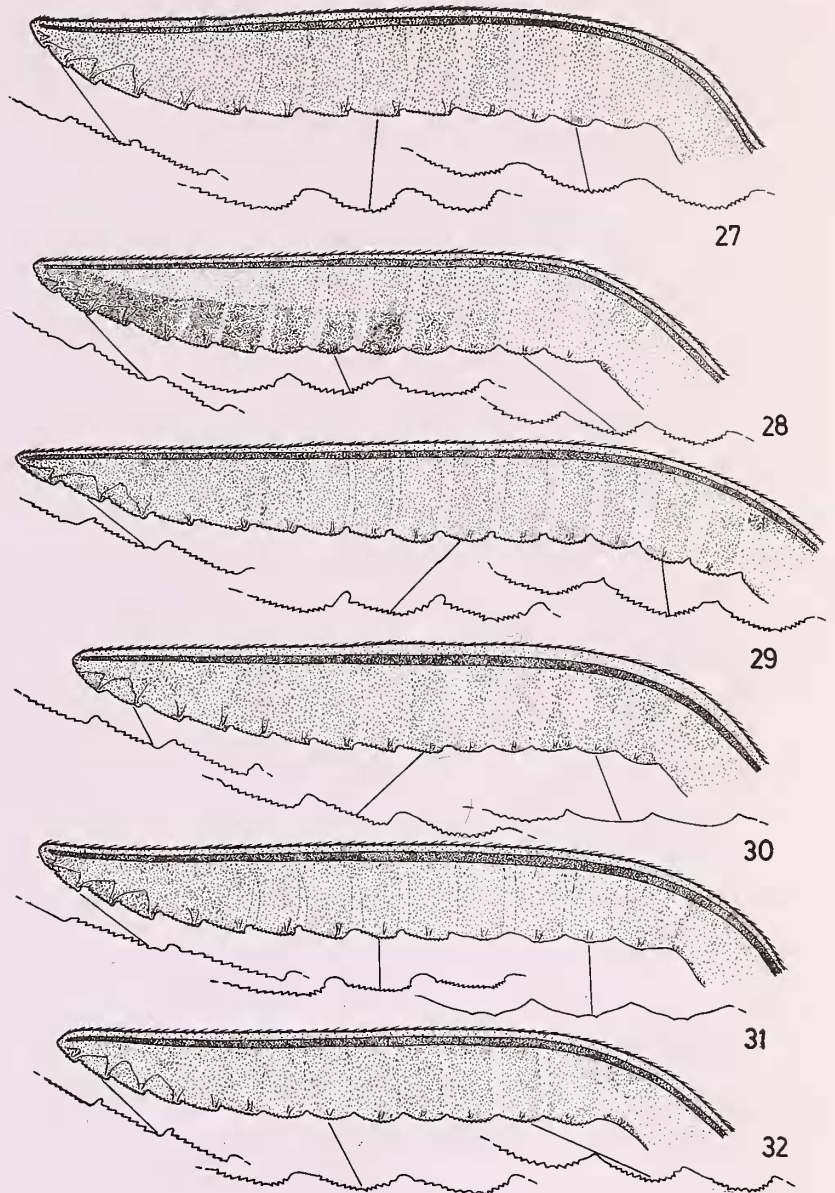
Population variation: An irregular medial spot may be present at least on any two adjoining tergites between 2-5.

Distribution: INDIA: Arunachal Pradesh, West Bengal.

Diagnostic combinations: *U. fasciiventris* Malaise remains distinct from all species dealt herewith in having tergites 2-5 with a broad medial auratus spot (entirely black in others except in *U. auratica* where these are entirely auratus); postocellar area broader than long as 3:1 (2:1 in *U. auratica* & *U. brevis*, 3:2 in *U. acupunctata*, *U. nigritarsis* & *U. scutopunctatus*, 4:3 in *U. himalayaensis*) and OOL:POL:OCL = 3:2:3 (2:2:1 in *U. auratica*, 4:4:3 in *U. acupunctata* & *U. scutopunctatus*, 5:4:5 in *U. himalayaensis*, 5:4:4 in *U. brevis*, 4:4:5 in *U. nigritarsis*).

***Ungulia acupunctata* sp. nov.**
(Figs. 2, 8, 15, 21, 28, 35)

FEMALE: **Colour:** Body black, pale yellow are: clypeus; labrum; posterodorsal angle of pronotum; spot on mesopleuron; deflexed lateral sides of tergites 2-7; all legs except posterior stripe along pro- and meso-tibiae, all tarsi



Figs. 27-32. Lancet: 27. *U. fasciiventris* Malaise; 28. *U. acupunctata* sp. nov.; 29. *U. himalayaensis* sp. nov.; 30. *U. brevis* sp. nov.; 31. *U. nigritarsis* (Cameron); 32. *U. scutopunctatus* sp. nov.

entirely which are brownish; underside of abdomen except dark brown apex. Wings infumated, venation including costa, subcosta and stigma black.

Structure: Average length 6 mm. Antenna (Fig. 41) 2X head width; scape as long as its apical width; pedicel as long as 1.3X its apical width; segments 3 and 4 subequal as 7:6; clypeus (Fig. 2) with slightly emarginate, wavy anterior margin; labrum broader than long as 2:1, with deflexed rounded anterior margin; malar space 1.75X diameter of median ocellus and 2X pedicel length; LID:IDMO:EL =

2.0:2.0:1.5; frontal area elevated above level of eyes; median fovea (Fig. 35) deep, ditch-like in its anterior half and posteriorly not reaching median ocellus; post-, inter- and circum-ocellar furrows deep, well marked; lateral furrows deep, diverging posteriorly and ending abruptly well before hypothetical hind margin of head; postocellar area broader than long as 3:2; OOL:POL:OCL = 4:4:3; mesoscutellum slightly elevated in middle; appendage not carinate; ICD:ITD = 2:7; metabasitarsus shorter than the following joints combined as 6:7; IATS:MB:OATS = 2.0:5.0:1.75. Lancet (Fig. 28) having 13 serrulae. Hypopygium as in Fig. 8.

Sculpture and pubescence: Head and thorax shining and minutely punctured; abdomen impunctate, surface subshining. Body covered with silvery pubescence.

MALE: Average length 5 mm. Similar to female. Male genitalia: Penis valve (Fig. 21), gonoforceps (Fig. 15).

Material examined: *Holotype:* Female, Arunachal Pradesh: Bomdila, 2550 m, 9.5.1992. *Paratypes:* Arunachal Pradesh, Bomdila, 2550 m, (30 ♀♀, 7 ♂♂), 8.5. 1992 - 9.5.1992; (20 ♀♀, 3 ♂♂), 13.9.1992; Dirang, 1500 m, (20 ♀♀, 2 ♂♂), 15.9.1992.

Population variations: Not observed.

Distribution: INDIA: Arunachal Pradesh.

Diagnostic combinations: Though the broad key characters such as abdomen entirely black; antennal segments 3 and 4 subequal; malar space twice the diameter of median ocellus bring *U. acupunctata* close to *U. himalayaensis*, it differs in the following characters: median fovea deep ditch-like in its anterior 1/2 and posteriorly not reaching median ocellus (shallow triangular pit in its anterior 1/2 and posteriorly shallowly reaching median ocellus in *U. himalayaensis*), postocellar area broader than long as 3:2 (4:3 in *U. himalayaensis*), segments 3 and 4 as 7:6 (6:7 in *U. himalayaensis*), malar

space 2X pedicel (1X in *U. himalayaensis*) and OOL:POL:OCL = 4:4:3 (5:4:5 in *U. himalayaensis*).

Etymology: Species name pertains to the very fine punctures present on body.

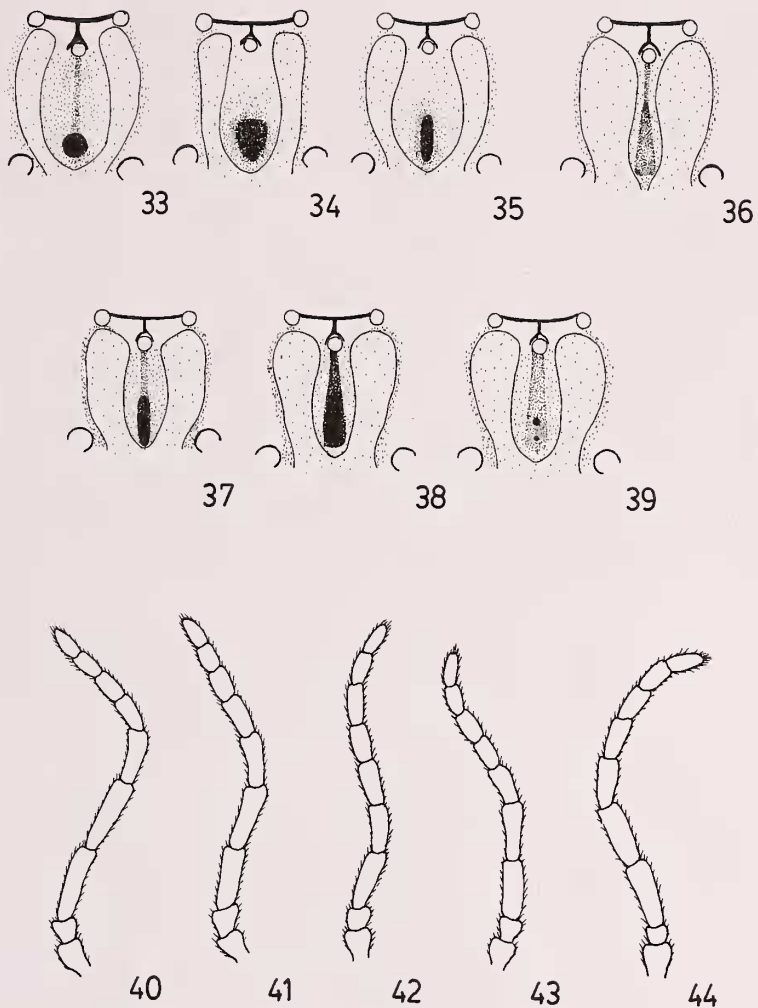
***Ungulia himalayaensis* sp. nov.**

(Figs. 7, 13, 19, 29, 36, 42)

FEMALE: *Colour:* Body black, yellowish white are: clypeus except base; labrum; mandible base; posterodorsal angles of pronotum; a broad triangular spot on lower posterior part of mesepisternum; deflexed lateral sides of tergites 3-6; all sternites entirely; all legs except fuscus tarsi. Wings infumated, venation including costa, subcosta and stigma piceous.

Structure: Average length 6.5 mm. Antenna (Fig. 42) 2.3X head width; scape as long as its apical width; pedicel 1.3X its apical width; segment 3 shorter than 4 as 6:7; clypeus (Fig. 2) shallowly, circularly emarginate with wavy anterior margin; labrum broader than long as 2:1, with deflexed rounded anterior margin; malar space 1.75X diameter of median ocellus and as long as pedicel; LID:IDMO:EL = 3:3:2; median fovea (Fig. 36) in form of a shallow triangular pit in its anterior half and posteriorly only shallowly reaching median ocellus; post-, inter-, and circum-ocellar furrows sharp and distinct; lateral furrows deep, distinct, diverging backwards and ending well before hypothetical hind margin of head; postocellar area broader than long as 4:3; OOL:POL:OCL = 5:4:5; mesoscutellum subconvex; appendage not carinated; metabasitarsus equal to following joints combined; IATS:MB:OATS = 2:5:1.5. Lancet (Fig. 29) with 15 serrulae. Hypopygium as in Fig. 7.

Sculpture and pubescence: Head and thorax almost impunctate except a few scattered, minute punctures, surface shining with general



Figs. 33-39. Head (Front view of median fovea): 33. *U. auratica* sp. nov.; 34. *U. fasciiventris* Malaise; 35. *U. acupunctata* sp. nov.; 36. *U. himalayaensis* sp. nov.; 37. *U. brevis* sp. nov.; 38. *U. nigratarsis* (Cameron); 39. *U. scutopunctatus* sp. nov.; 40-44. Antenna: 40. *U. auratica* sp. nov.; 41. *U. fasciiventris* Malaise; 42. *U. himalayaensis* sp. nov.; 43. *U. brevis* sp. nov.; 44. *U. scutopunctatus* sp. nov.

oily lustre; abdomen impunctate, subshining. Body covered with silvery pubescence.

MALE: Average length 4.5 mm. Similar to female. Male genitalia: Penis valve (Fig. 19), gonoforceps (Fig. 13).

Material examined: *Holotype:* Female, Uttar Pradesh, Dhanolti, 2200 m, 25.7.1993. *Paratypes:* Uttar Pradesh, Auli, 2400 m, (1 ♀), 27.6.1992; Munsyari, 2300 m, (1 ♀), 19.6.1993; Binayak, 2200 m, (1 ♂), 22.6.1993; Dhanolti, 2200 m, (1 ♀, 1 ♂), 25.7.1993.

Population variation: Not observed.

Distribution: INDIA: Uttar Pradesh.

Diagnostic combinations: Entirely black abdomen is sufficient to separate *U. himalayaensis* from *U. auratica* and *U. fasciiventris* (tergites 2-5 entirely auratus in former, but 2-5 with broad medial auratus spot in latter). It is distinct from *U. brevis*, *U. nigratarsis*, and *U. scutopunctatus* on the basis of antennal segments 3 and 4 as 6:7 (equal in all three); malar space less than 2X diameter of median ocellus (2X or more in all the three); median fovea triangular, pit-like, shallowly reaching median ocellus (ditch-like shallowly reaching median ocellus in *U. brevis* and *U. scutopunctatus* but deep ditch-like clearly reaching median ocellus in *U. nigratarsis*).

Etymology: Named after the great 'Himalaya' in which its localities fall.

***Ungulia brevis* sp. nov.**

(Figs. 11, 16, 22, 30, 37, 43)

FEMALE: Colour: Body black, yellowish white are: clypeus except extreme base; labrum; posterodorsal angle of pronotum; a broad triangular spot on lower posterior 1/2 of mesepisternum; all sternites entirely; all legs except tarsi which are light brownish. Wings infumated; venation including costa, subcosta and stigma light to dark brown.

Structure: Average length 4.5 mm. Antennae (Fig. 43) 2.7X head width; scape as long as its apical width; pedicel half as long as its apical width; segments 3 and 4 equal; clypeus (Fig. 1) circularly incised up to 1/3 of its medial length; labrum broader than long as 2:1, with deflexed rounded anterior margin; malar space 2X diameter of median ocellus and as long as pedicel; LID:IDMO:EL = 5:6:4; median fovea (Fig. 37) ditch-like in its anterior half and posteriorly only shallowly reaching median ocellus; post-, inter-, and circum-ocellar furrows

sharp and distinct; lateral furrows deep, distinct, diverging backwards and ending well before hypothetical hind margin of head; postocellar area subconvex, broader than long as 2:1; OOL:POL:OCL=5:4:4; mesoscutellum subconvex; appendage not carinate; ICD:ITD:1:3; metabasitarsus shorter than following joints combined as 4:5; IATS:MB:OATS = 0.75:0.5:2.0. Lancet (Fig. 30) with 14 serrulae. Hypopygium as in Fig. 11.

Sculpture and pubescence: Head impunctate, shining; mesonotum and mesoscutellum with dense, minute, irregular, inconspicuous punctures, surface shining; appendage impunctate, polished; mesepisternum and mesosternum almost impunctate, polished; surface shining with general oily lustre; abdomen impunctate, subshining. Body covered with silvery pubescence.

MALE: Average length 3.5 mm. Similar to female. Male genitalia: Penis valve (Fig. 22), gonoforceps (Fig. 16).

Material examined: *Holotype:* Female, Arunachal Pradesh, Bomdila, 2550 m, 9.5.1992. *Paratypes:* Arunachal Pradesh, Bomdila, 2550 m, (2 ♀♀, 5 ♂♂), 9.5.1992.

Population variation: Outer aspects of tibiae may be faintly brownish.

Distribution: INDIA: Arunachal Pradesh.

Diagnostic combinations: Postocellar area broader than long as 2:1 (3:2 in *U. nigratarsis* and *U. scutopunctatus*), pedicel 1/2 of its apical width (as long as its apical width in *U. nigratarsis* and *U. scutopunctatus*) and clypeus emarginate up to 1/3 of its medial length (only shallowly emarginate in *U. nigratarsis* and *U. scutopunctatus*) are the character which keep *U. brevis* distinct from these two species. On the basis of antennal segments 3 and 4 equal (subequal in *U. acupunctata* and *U. himalayaensis*), malar space 2X diameter of median ocellus (less than 2X diameter in *U.*

acupunctata & *U. himalayaensis*, median fovea ditch-like in anterior 1/2 and posteriorly shallowly reaching median ocellus (ditch-like in anterior 1/2 but posteriorly not reaching median ocellus in *U. acupunctata* and triangular pit-like in *U. himalayaensis*, this species remains distinct from its closely related species. Colour pattern of abdomen of this species which is entirely black separates it from *U. fasciiventris* (tergites 2-5 with broad medial auratus spot) and *U. auratica* (tergites 2-5 auratus entirely).

Etymology: Species name pertains to small size of its body.

***Ungulia nigratarsis* (Cameron, 1902)**

(Figs. 3, 10, 14, 20, 31, 38)

Taxonus nigratarsis Cameron, 1902, *J. Bombay nat. Hist. Soc.*; 14: 443.

U. nigratarsis (Cameron) Malaise, 1961. *Ent. Tidskr.*; Arg, 82, Hafte 3-4: 244.

FEMALE: *Colour:* Body black, yellowish white are: clypeus except base; labrum; mandible base; a broad triangular spot on lower posterior 1/2 of mesepisternum; all sternites; all legs except tarsi which are light to dark brownish. Wings infumated; venation including costa, subcosta and stigma piceous.

Structure: Average length 6 mm. Antenna (Fig. 44) 2.3X head width; scape and pedicel as long as their apical widths; segments 3 and 4 equal; clypeus (Fig. 3) shallowly circularly emarginate with wavy anterior margin; labrum (Fig. 3) broader than long as 2:1, with slightly deflexed rounded anterior margin; malar space 2.5X diameter of median ocellus and 1.5X pedicel length; LID:IDMO:EL = 3:3:2; median fovea (Fig. 38) ditch-like in its anterior half and posteriorly clearly reaching median ocellus; post-, inter-, and circum-ocellar furrows sharp and distinct; lateral furrows deep, distinct, diverging backwards and ending well before

hypothetical hind margin of head; postocellar area subconvex, broader than long as 3:2; OOL:POL:OCL = 4:4:5; mesoscutellum subconvex, appendage not carinated; ICD:ITD = 2:7; metabasitarsus shorter than following joints combined as 6:7; IATS:MB:OATS = 0.75:3:1. Lancet (Fig. 31) with 14 serrulae. Hypopygium as in Fig. 10.

Sculpture and pubescence: Head impunctate, shining; thorax with dense, fine, irregular, inconspicuous punctures, except impunctated appendage, surface shining with general oily lustre; abdomen impunctate, subshining. Body covered with silvery pubescence.

MALE: Length 4.5 mm. Similar to female. Male genitalia: Penis valve (Fig. 20), gonoforceps (Fig. 14).

Holotype depository: Male, BMNH, London.

Paratype depository: 1 ♀, NR Stockholm.

Specimens examined: Arunachal Pradesh, Bomdila, 2550 m, (4 ♀♀), 13.9.1992; Nine mile, 1200 m, (2 ♀♀, 1 ♂), 14.9.1992. Meghalaya, Smit, 1500 m, (1 ♀), 5.9.1993.

Population variation: Posterodorsal angle of pronotum may be whitish yellow.

Distribution: INDIA: Arunachal Pradesh, Meghalaya.

Diagnostic combinations: *U. nigritarsis* (Cameron) is unique in having deep ditch-like median fovea posteriorly clearly reaching median ocellus, malar space 2.5X diameter of median ocellus and 1.5X pedicel length, OOL:POL:OCL=4:4:5 and thorax with dense, fine, irregular punctures. The combination of these characters separates it from all species of this genus.

***Ungulia scutopunctatus* sp. nov.**

(Figs. 4, 9, 18, 25, 32, 39, 44)

FEMALE: *Colour:* Body black, yellowish

white are: clypeus except base; labrum; posterodorsal angle of pronotum; a triangular spot on lower posterior 1/2 of mesepisternum; all sternites entirely; all legs except apices of all tibiae and tarsi which are fuscus. Wings infumated; venation including costa, subcosta and stigma piceous.

Structure: Average length 6.5 mm. Antenna (Fig. 44) 2.2X head width; scape and pedicel as long as their apical widths; segments 3 and 4 equal; clypeus (Fig. 4) slightly emarginate; labrum (Fig. 4) broader than long as 3:1, with slightly deflexed and truncate anterior margin; malar space 2X diameter of median ocellus and 1.2 X pedicel length; LID:IDMO:EL = 3:3:2; median fovea (Fig. 39) shallow ditch-like in its anterior half and posteriorly shallowly reaching median ocellus; post-, inter-, and circum-ocellar furrows sharp and distinct; lateral furrows distinct, diverging backwards and ending abruptly just before hypothetical hind margin of head; postocellar area almost flat, broader than long as 3:2; OOL:POL:OCL = 4:4:3; mesoscutellum subconvex; appendage not carinate; ICD:ITD = 2:7; metabasitarsus shorter than following joints combined as 6:7; IATS:MB:OATS = 1:3:1. Lancet (Fig. 32) with 13 serrulae. Hypopygium as in Fig. 9.

Sculpture and pubescence: Head, thorax and abdomen impunctate except a few shallow punctures on posterior slope of mesoscutellum, surface shining. Body covered with silvery pubescence.

MALE: Average length 4 mm. Similar to female. Male genitalia: Penis valve (Fig. 25), gonoforceps (Fig. 18).

Material examined: *Holotype:* Female, Sikkim, Gangtok, 1500 m, 14.5.1993. *Paratypes:* West Bengal, Darjeeling, 2280 m, (2 ♀♀, 1 ♂), 7.5.1993.

Population variation: Not observed.

Distribution: INDIA: Sikkim, West Bengal.

Diagnostic combinations: *U. scutopunctatus* resembles *U. nigratarsis* on the basis of some broad key characters such as: abdomen entirely black; postocellar area broader than long as 3:2; pedicel as long as its apical width; clypeus shallowly emarginate and antennal segments 3 and 4 equal, but differs from it in having malar space 2X diameter of median ocellus (2.5X in *U. nigratarsis*) and 1.2X pedicel length (1.5X in *U. nigratarsis*), median fovea shallow ditch-like in its anterior 1/2 and shallowly reaching median ocellus (deep ditch-like, clearly reaching median ocellus in *U.*

nigratarsis) and OOL:POL:OCL = 4:4:3 (4:4:5 in *U. nigratarsis*).

Etymology: Species name refers to the presence of punctures on mesoscutellum.

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